**Practices and Capacities**

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| **Maryland State STEM Standards of Practice**  **(**[**Maryland State STEM Standards of Practice**](http://www.marylandpublicschools.org/MSDE/programs/stem/)**)** | **Scientific and Engineering Practices**  **(**[**A Framework for K-12 Science Education: Practices, Crosscutting Concepts, and Core Ideas**](http://www.nap.edu/catalog.php?record_id=13165)**)** | **Standards for Mathematical Practices**  **(**[**Common Core State Standards Mathematics**](http://mdk12.org/instruction/curriculum/mathematics/index.html)**)** | **Capacities of a Literate Individual**  **(**[**Common Core State Standards English Language Arts**](http://mdk12.org/instruction/curriculum/reading/index.html)**)** |
| 1. Learn and apply rigorous science, technology, engineering, and mathematics content. 2. Integrate science, technology, engineering, and mathematics content. 3. Interpret and communicate information from science, technology, engineering, and mathematics. 4. Engage in inquiry. 5. Engage in logical reasoning. 6. Collaborate as a STEM team. 7. Apply technology strategically. | 1. Asking questions (for science) and defining problems (for engineering). 2. Developing and using models. 3. Planning and carrying out investigations. 4. Analyzing and interpreting data. 5. Using mathematics and computational thinking. 6. Constructing explanations (for science) and designing solutions (for engineering). 7. Engaging in argument from evidence. 8. Obtaining, evaluation, and communicating information. | 1. Make sense of problems and persevere in solving them. 2. Reason abstractly and quantitatively. 3. Construct viable arguments and critique the reasoning of others. 4. Model with mathematics. 5. Use appropriate tools strategically. 6. Attend to precision. 7. Look for and make use of structure. 8. Look for and express regularity in repeated reasoning. | 1. They demonstrate independence. 2. They build strong content knowledge. 3. They respond to the varying demands of audience, task, purpose, and discipline. 4. They comprehend as well as critique. 5. They value evidence. 6. They use technology and digital media strategically and capably. 7. They come to understand other perspectives and cultures. |